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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/658,174	09/08/2000	Hiroki Ogata	SCEI 3.0-029	3464

7590 09/30/2003
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EXAMINER

COBURN, CORBETT B

ART UNIT	PAPER NUMBER
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3714

DATE MAILED: 09/30/2003

20

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

Office Action Summary	Application No.	Applicant(s)	
	09/658,174	OGATA ET AL	
	Examiner	Art Unit	
	Corbett B. Coburn	3714	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 and 17-97 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 and 17-97 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 08 September 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Claim Objections

1. Claim 73 is objected to because of the following informalities: it contains "lop portion" in line 3. This should be "top portion". Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-15 & 17-97 are rejected under 35 U.S.C. 103(a) as being unpatentable over DeVolpi (US Patent Number 6,067,005) in view of Roberts et al. (US Patent Number 6,203,432).

Claim 1, 4, 18, 19, 31, 33, 37, 39, 43, 44, 50, 53, 66, 67, 79, 85, 87: DeVolpi teaches a controller (12) that can be pushed. There is a detecting device (22, 24) for outputting an analog signal in response to the pressure applied to the controller during normal operation of the controller. (Col 1, 15-20) There is an analog-to-digital that converts the analog signal into a bit stream and outputs it as a corresponding digital signal. (Col 3, 14-22) An analog-to-digital converter is a level-segmenting unit for segmenting the output level of the analog signal into a digital signal having a plurality of bits.

DeVolpi teaches that an elastic conductive element (18), which is also a resistor, moves with the controller (12) (Col 6, 36-37) and a conductive member (24) is disposed at a position where the conductive member is brought into and out of contact with the

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resistor and outputs the analog signal corresponding to the contact area between the resistor and the conductive member. (Col 7, 38-43)

DeVolpi fails to teach an initial calibrating pressure applied to the controller that provides a calibration signal that is divided into predetermined calibration levels based on the initial output level of the analog signals. Roberts teaches a device having a calibration routine in which the player inputs an initial calibration signal that is divided into predetermined calibration levels based on the initial output level of the analog signal. (Abstract) During the normal operation of the device, the output levels of the analog signal is segmented into predetermined levels based on the initial value of the calibration signal. This allows the player to adjust the sensitivity of the device. "Adjusting the sensitivity lets the player choose whatever positions of the input device he or she finds comfortable for a particular game." (Abstract) It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified DeVolpi to include a calibration routine as described in Roberts in order to allow the player to adjust the sensitivity of the device, thus allowing the player to choose whatever positions of the input device he or she finds comfortable for a particular game.

The device renders the method of operation obvious.

Claims 2, 51: DeVolpi's detecting device (22, 24) is a pressure-sensitive device that is arranged at a position to which a pressure acting of the controller is transmitted to the detecting device. (Fig 1)

Claims 3, 32, 38, 52, 80, 86: DeVolpi teaches an elastic conductive member (18) that moves with the controller (12). There is a resistor (22) disposed to come into and out of

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contact with the elastic conductive member. The resistor outputs the analog signal corresponding to the contact area with the conductive member. (Col 7, 38-43) There is an analog-to-digital that converts the analog signal into a bit stream and outputs it as a corresponding digital signal. (Col 3, 14-22) An analog-to-digital converter is a level-segmenting unit for segmenting the output level of the analog signal. Analog input forms a continuous curve; output from the analog-to-digital converter is in the form of a series of discrete steps or segments.

Claims 5, 20, 54, 68, 81: DeVolpi's conductive member (18) is deformed and has a contact area with the resistor in accordance with the contact pressure with the resistor. (Col 7, 38-43)

Claims 6, 21, 55, 69: DeVolpi's Fig 5 shows that each conductive member (28) has a peaked longitudinal-section surface.

Claims 7, 22, 56, 70: DeVolpi's Fig 5 shows that conductive members (28), taken as a group, have an essentially trapezoidal longitudinal-section surface.

Claims 8, 23, 34, 40, 57, 71, 82, 88, 93: DeVolpi's conductive member (18) has a cross-sectional area that decreases stepwise (i.e., gradually) toward a top portion that faces the resistor (22). Thus the resistance increases stepwise as the pressure increases.

Claims 9, 24, 58, 72: DeVolpi's conductive element (18) shown in Fig 1 has a spherical surface that faces the resistor (22).

Claims 10, 25, 35, 41, 59, 73, 83: DeVolpi's resistor (18) is formed in a shape that has a cross-sectional area that decreases stepwise (i.e., gradually) toward a top portion that faces the conductive member (24).

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Claim 11, 26, 60, 74: DeVolpi's Fig 5 shows each resistor (28) has a peaked longitudinal-section surface.

Claims 12, 27, 61, 75: DeVolpi's Fig 5 shows resistors (28), taken as a group, have an essentially trapezoidal longitudinal-section surface.

Claims 13, 28, 62, 76: DeVolpi's resistive element (18) shown in Fig 1 has a spherical surface that faces the conductive surface (24).

Claims 14, 29, 63, 77, 89: DeVolpi's resistor (18) has a cross-sectional area that decreases stepwise (i.e., gradually) toward a top portion that faces the resistor (24).

Claims 15, 30, 36, 42, 45, 64, 78, 84, 90: DeVolpi's conductive member (18) is deformed in accordance with a contact pressure with the resistor (22) and the contact area between the resistor and conductive element is changed. The resistor (22) divides a contact region of the conductive member (18) and the contact area increases stepwise (i.e., gradually) as the deformation increases. Fig 3 clearly shows that the resistor (22) has non-conductive regions (the spaces between the lines) such that the area of contact increases stepwise.

Claim 17, 46-49, 65, 91, 92, 94-97: DeVolpi teaches an input device with a resistor and an elastic conductive member that moves together with the controller for contacting the resistor (and vice versa). The maximum output level of DeVolpi's device correlates to the maximum applied pressure. DeVolpi does not teach a calibration routine. Roberts teaches a calibration routine that calibrates the control apparatus by ascertaining a maximum output level from the detecting device such that the level-segmenting unit divides the predetermined levels equally (or uniformly) up to the maximum output level

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and assigns preset digital signals to each of the predetermined calibration levels..

(Abstract & Fig 5) This allows the player to adjust the sensitivity of the device.

“Adjusting the sensitivity lets the player choose whatever positions of the input device he or she finds comfortable for a particular game.” (Abstract) It would have been obvious to one of ordinary skill in the art at the time of the invention to have modified DeVolpi to include a calibration routine as described in Roberts in order to allow the player to adjust the sensitivity of the device, thus allowing the player to choose whatever positions of the input device he or she finds comfortable for a particular game.

Response to Arguments

4. Applicant's arguments with respect to claims 1-15 & 17-44 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Chung (US Patent Number 5,632,680) teaches segmented output.

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corbett B. Coburn whose telephone number is (703) 305-3319. The examiner can normally be reached on 8-5:30, Monday-Friday, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Hughes can be reached on (703) 308-1806. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



cbc



JESSICA HARRISON
PRIMARY EXAMINER